

Remarks

Claims 1 through 20 are now pending. Claim 1 has been amended to include the limitations of cancelled claims 2 and 3. Claims 21 and 22 have been added to better define what Applicants regard as the invention. Support for new claim 21 found in the specification at Page 4, Lines 32 through 33. Support for new claim 22 is found in the specification at Page 3, Lines 21 to 23.

Rejections Under 35 U.S.C. Section 103

The claims have been rejected under 35 U.S.C. Section 103(a) as being unpatentable over Applicants' Disclosure and Schisler et al., (U.S. Patent No. 6,264,178 ; hereinafter "Schisler") in view of Yarnell et al., (European Patent No.1205515 ; hereinafter "Yarnell"). To the extent the amended claims are deemed unpatentable over the cited art, these rejections are traversed.

In summary, the Examiner maintains that Applicants' Disclosure and Schisler teach all of the limitations of the claimed airsleeve, except for the use of the metal salt of an α , β - ethylenically unsaturated carboxylic acid, organic peroxide, and filler. To compensate for this lack of teaching, the Examiner cites Yarnell for its teaching regarding the use of metal salt of an α , β - ethylenically unsaturated carboxylic acid, organic peroxide, and filler in an "elastomeric base."

As motivation to modify the teaching of Applicants Disclosure and Schisler with the teaching of Yarnell, the Examiner maintains that one skilled in the art would find it obvious to use the elastomeric base of Yarnell containing the metal salt of an α , β - ethylenically unsaturated carboxylic acid, organic peroxide and filler in the airsleeve of Applicants' Disclosure and Schisler "in order to provide improved adhesion to textile reinforcement as taught or suggested by Yarnell."

Applicants urge that no such motivation to modify or combine the cited references exists.

The Examiner ostensibly equates the "elastomeric base" of Yarnell with the elastomers cited in the present claims; Applicants urge that these are not equivalent. Yarnell does not teach generally the use of metal salt of an α , β - ethylenically unsaturated carboxylic acid, organic peroxide, and filler in an "elastomeric base" but rather specifically their use in an ethylene-alpha-olefin elastomeric composition (paragraph 0001). The ethylene-alpha-olefin elastomeric composition taught therein must contain elastomers including from 50 to 100 percent by weight of ethylene-alpha-olefin, and may optionally include less than 50 percent by weight of a second elastomeric material that may include natural rubber, styrene-butadiene rubber, and butadiene rubber, among others (paragraph 0027). By contrast, present claim 1 recites an airsleeve comprising elastomer selected from natural rubber, synthetic polyisoprene rubber, butadiene rubber and styrene-butadiene rubber. The "elastomeric base" of Yarnell and the elastomers in the rubber composition of the present claims are simply not the same, and the Examiner has given no reason why one skilled in the art would understand that the metal salt of an α , β - ethylenically unsaturated carboxylic acid, organic peroxide, and filler taught by Yarnell for use in an ethylene-alpha-olefin elastomeric composition could equivalently be used in a rubber composition comprising elastomer selected from natural rubber, synthetic polyisoprene rubber, butadiene rubber and styrene-butadiene rubber as in the present claims.

Applicants further urge that simply because Yarnell teaches that the ethylene-alpha-olefin elastomeric composition taught therein may optionally include a second elastomer such as natural rubber, styrene-butadiene rubber, and butadiene rubber, one skilled in the would not understand that the metal salt of an α , β - ethylenically unsaturated carboxylic acid, organic peroxide, and filler could be successfully used in an airsleeve comprising a rubber composition comprising elastomer selected from natural rubber, synthetic polyisoprene rubber, butadiene rubber and styrene-butadiene rubber as in the present claims. Yarnell is directed to the use of the metal salt of an α , β - ethylenically unsaturated carboxylic acid, organic peroxide, and filler in

an ethylene-alpha-olefin elastomeric composition; all of the examples of Yarnell are directed to compositions containing 100 percent of EPDM, a representative an ethylene-alpha-olefin. Yarnell further teaches that the use of the optional second elastomer such as natural rubber, styrene-butadiene rubber, and butadiene rubber, among others, is "to fine-tune certain mechanical properties such as high temperature performance and tack." (Paragraph 0027). Applicants urge that simply because Yarnell teaches that natural rubber, styrene-butadiene rubber, or butadiene rubber may optionally be used in the disclosed ethylene-alpha-olefin composition comprising a metal salt of an α , β - ethylenically unsaturated carboxylic acid, organic peroxide, and filler would not suggest to one skilled in the art that the metal salt of an α , β - ethylenically unsaturated carboxylic acid, organic peroxide, and filler could successfully be used in an airsleeve plycoat rubber composition comprising an elastomer selected from natural rubber, synthetic polyisoprene rubber, butadiene rubber and styrene-butadiene rubber. The use of natural rubber, synthetic polyisoprene rubber, butadiene rubber and styrene-butadiene rubber in the present claims is not "to fine-tune certain mechanical properties such as high temperature performance and tack," but to provide the elastomeric portion of the plycoat composition for use in the airsleeve.

Moreover, nowhere does Yarnell teach nor suggest that a rubber composition of any kind may be suitable for use as an airsleeve plycoat to adhere to a elastomeric cover comprising at least one rubber selected from epichlorohydrin rubber, brominated butyl rubber and chlorinated butyl rubber. Even if it is assumed *arguendo* that Yarnell may be read to provide motivation to modify the teaching of Applicants' Disclosure and Schisler "to provide improved adhesion to textile reinforcement" as maintained by the Examiner, one skilled in the art would at most understand this motivation to improve the adhesion of the plycoat to the textile reinforcement of the airsleeve. However, this is not enough to motivate one skilled in the art to choose the recited plycoat for use in an airsleeve. One skilled in the art would also need to have a reasonable

expectation that the plycoat would provide adequate adhesion to the elastomeric cover or liner before choosing such a plycoat. There is nothing in Yarnell that would teach or suggest to one skilled in the art that such a composition may be used in a plycoat to successfully adhere to an elastomeric cover or liner as in the amended claims. And while Schisler or Applicant's Disclosure may teach that the plycoat may contain the elastomers recited in the amended claims, nowhere does Schisler nor Applicants' disclosure teach or suggest that a cover or liner comprising at least one rubber selected from epichlorohydrin rubber, brominated butyl rubber and chlorinated butyl rubber may be used successfully with a plycoat as recited in the claims. In fact, Schisler teaches only that the elastomers in the plycoat and cover should be from "the same family" (Column 4, Lines 22 through 26); Applicants urge that one skilled in the art would not view the non-halogenated rubbers natural rubber, synthetic polyisoprene rubber, butadiene rubber and styrene-butadiene rubber as being in "the same family" as the halogenated rubbers epichlorohydrin rubber, brominated butyl rubber and chlorinated butyl rubber. Only in the present specification is it taught that suitable adhesion between the recited plycoat composition and the cover or liner is realized. Combination of Applicants' disclosure and Schisler with Yarnell would not result in present claims; such a combination would not include a cover or liner as recited in the present claims. Applicants urge prima facie case of obviousness does not exist for the amended claims.

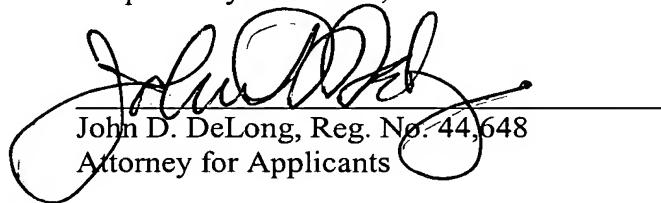
Applicants further urge that even if prima facie obviousness exists, the current specification includes evidence of unexpected results sufficient to overcome prima facie obviousness of new claims 21 and 22. The Example includes adhesion data for plycoat compositions adhering to nylon fabric and to an epichlorohydrin rubber/chlorobutyl rubber cover compound. As seen in the data of Table 3, high adhesion values are observed surprisingly and unexpectedly for both adhesion to the nylon fabric and the cover compound where only carbon black and no silica is included in the plycoat compound (Samples 1 and 2). In particular,

exceptionally high adhesion between the plycoat and both the nylon fabric and cover compound is observed for Sample 2, comprising natural rubber, synthetic polyisoprene, and carbon black. Applicants thus urge that showing of unexpected results is sufficient to overcome *prima facie* obviousness of claims 21 and 22.

Conclusion

Applicants urge that the amended claims are now fully patentable over the cited art. Applicants respectfully request allowance of all claims.

Respectfully submitted,



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